

**APPARATUS AND METHOD FOR LEAKAGE COMPENSATION IN THIN OXIDE
CMOS APPLICATIONS**ABSTRACT

5 A method, apparatus, and computer program are provided
for correcting the voltage across a thin oxide Complementary
Metal-Oxide Semiconductor (CMOS) capacitor. Due to ever-
decreasing thicknesses of capacitors in CMOS applications,
leakage through the capacitor by electron tunneling and
10 impurities has become a significant problem. For example,
in Phased Lock Loops (PLLs), leaky capacitors can cause
static phase errors. To combat the problem, a scaled
capacitor and current mirrors are used to provide a
correction current to a leaky capacitor to maintain a proper
15 voltages.